

IN THE CLAIMS:

Listing Of The Claims:

1. (Cancelled)

2. (Previously presented) The apparatus of claim 33 wherein the fluid flow selector includes at least one rotary valve and wherein the processor selects the containers of clearant, dehydrant or aqueous fluid by setting the rotary valve.

3. (Previously presented) The apparatus of claim 33 wherein a second valve is located in the conduit between the container of infiltrating medium and the processing chamber and wherein the processor controls the second valve.

4. (Previously presented) The apparatus of claim 3 wherein the processor further controls the fluid flow selector and the second valve in order to automatically and sequentially, after connection to the container of aqueous fluid, connect the processing chamber with the container of dehydrant agent, the container of clearant and the container of infiltrating medium in order to process the tissue specimen.

5. (Cancelled)

6. (Currently amended) An apparatus for automatically processing a tissue specimen from aqueous fluid to an infiltrating medium and reprocessing the tissue specimen from the infiltrating medium to the aqueous fluid comprising in combination:

a processing chamber for holding a tissue specimen, said chamber comprising a sealable space for containing various liquids;

a plurality of liquid containing containers including at least one liquid containing container of a clearant agent, at least one liquid containing container of a dehydrant agent, and at

least one liquid containing container of an aqueous fluid;

a fluid flow selector for selecting a fluid to flow to the processing chamber wherein the plurality of liquid containing containers are connected to the fluid flow selector by one or more first conduits and wherein a second conduit connects the fluid flow selector to the processing chamber;

a pressure regulator for regulating pressure in the processing chamber, the pressure regulator comprising at least one pressure sensor, the pressure sensor being in fluid communication with the processing chamber;

a temperature regulator for regulating temperature in the processing chamber, the temperature regulator comprising at least one temperature sensor, the temperature sensor being in thermal communication with the processing chamber;

at least one container of infiltrating medium connected to the processing chamber by a conduit;

a control device having a processor and a memory device, the processor controlling:

- the fluid flow selector to connect any of the containers to the processing chamber in any sequence,
- the pressure regulator,
- the temperature regulator, thereby automatically and sequentially processing and reprocessing the tissue specimen;

a liquid containing container of purge dehydrant for cleaning the processing chamber of clearant, the container of purge dehydrant being connected to the fluid flow selector by a first conduit, the processor controlling the fluid flow selector in order to automatically and sequentially connect the processing chamber with the liquid containing container of clearant; and

a container of purge clearant for cleaning the processing chamber of infiltrating medium, the container of purge clearant being connected to the processing chamber by the fluid flow selector, the processor controlling the fluid flow selector in order to automatically and sequentially connect the processing chamber with the container of purge clearant, the container of clearant agent, the container of purge dehydrant, the container of dehydrant agent and the container of aqueous solution in order to reprocess the tissue specimen.

7-22 (Cancelled)

23. (Previously presented) An apparatus for automatically reprocessing a tissue specimen from an infiltrating medium to an aqueous fluid comprising in combination:

a processing chamber for holding a tissue specimen, said chamber comprising a sealable space for containing various liquids used;

a fluid flow selector for selecting the fluid to flow to the processing chamber;
at least one container of a clearant agent;

at least one container of contaminated dehydrant agent;
at least one container of a dehydrant agent, the contaminated dehydrant agent being contaminated with the clearant agent more than the dehydrant agent;

at least one container of an aqueous fluid,

a plurality of first conduits, each first conduit connecting a container with the fluid flow selector and a second conduit connecting the fluid flow selector to the processing chamber; and

a control device controlling the fluid flow selector in order to automatically and sequentially connect the processing chamber with the container of clearant agent, the container of

contaminated dehydrant agent, the container of dehydrant agent and the container of aqueous solution in order to reprocess the tissue specimen.

24. (Previously presented) The apparatus of claim 23, further comprising at least one container of contaminated clearant agent, the contaminated clearant agent being contaminated with the infiltrating medium more than the clearant agent, wherein the at least one container of contaminated clearant agent is connected to the processing chamber via the fluid flow selector, and wherein the control device controls the fluid flow selector in order to automatically and sequentially connect the processing chamber with the container of contaminated clearant agent, clearant agent, the container of contaminated dehydrant agent, the container of dehydrant agent and the container of aqueous solution in order to reprocess the tissue specimen.

25. (Previously presented) The apparatus of claim 24, wherein the contaminated clearant agent is used to clean the processing chamber of infiltrating medium.

26. (Previously presented) The apparatus of claim 25, wherein the contaminated clearant agent is purge clearant.

27. (Previously presented) The apparatus of claim 25, wherein the contaminated dehydrant agent is used to clean the processing chamber of clearant.

28. (Previously presented) The apparatus of claim 27, wherein the contaminated dehydrant agent is purge dehydrant.

29. (Previously presented) The apparatus of claim 24, wherein the infiltrating medium comprises paraffin.

30. (Previously presented) The apparatus of claim 23, wherein the fluid flow selector may connect any of the containers to the processing chamber in any sequence.

31. (Previously presented) The apparatus of claim 30, wherein the fluid flow selector comprises a rotary valve and wherein the control device selects the containers of clearant, contaminated dehydrant, dehydrant or aqueous fluid by setting the rotary valve.

32. (Previously presented) The apparatus of claim 30, wherein the apparatus automatically processes the tissue specimen from the aqueous fluid to the infiltrating medium, and wherein the control device controls the fluid flow selector to connect the processing chamber with the container of aqueous solution, the container of dehydrant agent, the container of clearant agent and the container of infiltrating medium, in order to automatically and sequentially process the sample.

33. (Previously presented) An apparatus for automatically processing a tissue specimen from aqueous fluid to an infiltrating medium and reprocessing the tissue specimen from the infiltrating medium to the aqueous fluid comprising in combination:

a processing chamber for holding a tissue specimen, said chamber comprising a sealable space for containing various liquids;

a plurality of liquid containing containers including at least one liquid containing container of a clearant agent, at least one liquid containing container of a dehydrant agent, and at least one liquid containing container of an aqueous fluid;

a fluid flow selector for selecting a fluid to flow to the processing chamber wherein the plurality of liquid containing containers are connected to the fluid flow selector by one or more first conduits and wherein a second conduit connects the fluid flow selector to the processing chamber;

a pressure regulator for regulating pressure in the processing chamber, the pressure regulator comprising at least one pressure sensor, the pressure sensor being in fluid

communication with the processing chamber;

a temperature regulator for regulating temperature in the processing chamber, the temperature regulator comprising at least one temperature sensor, the temperature sensor being in thermal communication with the processing chamber;

at least one container of infiltrating medium connected to the processing chamber by a conduit;

a control device having a processor and a memory device, the processor controlling:

- the fluid flow selector to connect any of the containers to the processing chamber in any sequence,
- the pressure regulator,
- the temperature regulator, thereby automatically and sequentially processing and reprocessing the tissue specimen; and

a liquid containing container of purge dehydrant for cleaning the processing chamber of clearant, the container of purge dehydrant being connected to the fluid flow selector by a first conduit, the processor controlling the fluid flow selector in order to automatically and sequentially connect the processing chamber with the liquid containing container of clearant.